

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000779**Date Inspected:** 31-Oct-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	N/A	CWI Present:	Yes	No			
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006	Component:	77 Meter Mock-Up/89 Meter Mock-Up				

Summary of Items Observed:

The Caltrans Quality Assurance (QA) Inspector Roscoe Dixon arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to periodically monitor welding and Quality Control (QC) functions. While on site the QA Inspector observed and/or discovered the following:

77 Meter Mock-up:

This QA Inspector Dixon witnessed the in process welding of 77 Meter Mock-Up MUSA-SA273-5 inside weld joint # 5 between piece marks identified as piece marks p573 and p1082.

The ZPMC Certified Welding Inspector (CWI) Zhu Zhonghai informed the QA Inspector the approved welding procedure specification WPS-B-T-223-B-U3-F was being followed to perform the welding.

The ZPMC approved qualified welder Wong Bing ID # 048696 was utilizing Flux Cored Arc Welding (FCAW) process in the vertical (3G) position with the 1.4 mm diameter electrode designated as E71T-1 /AWS A5.20, brand name Supercored.

This QA Inspector observed the ZPMC Quality Control (QC) personnel Zhang Giao verify the welding travel speed at 120mm Mr. Zonghai then verified the welding machine ampere at 205 and 24.3 the volts using a voltage meter, This QA Inspector Dixon also performed random verification of the weld parameters using a Fluke meter.

This QA Inspector visually verified the above listed approved WPS, which was posted near the welding operation

WELDING INSPECTION REPORT

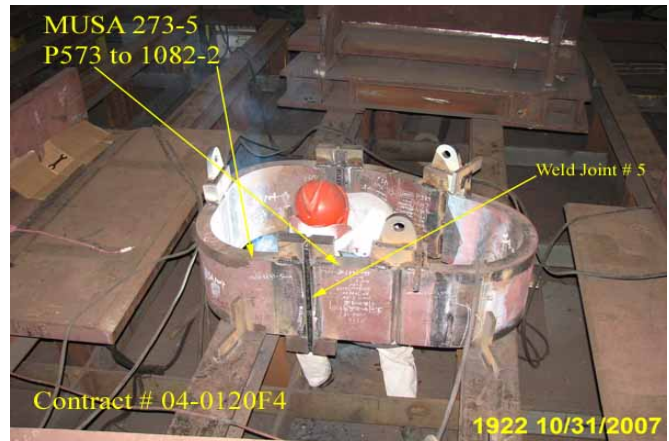
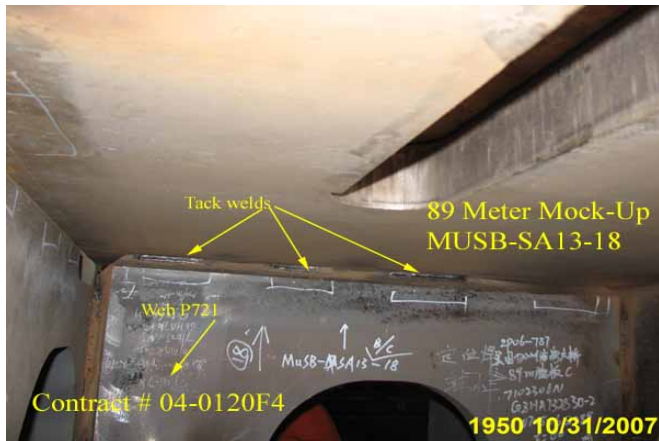
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and determined that the welding and work in progress on the items listed above appeared to comply with the above listed WPS and the contract documents

89 Meter Mock-Up:

This QA Inspector observed the in progress in the(overhead)4G position tack welding on the 89 Meter Mock-Up 720-1 web plate to the Upper Diaphragm SA13 being performed by ZPMC qualified welder Chen Ru yang, ID# 066726. The Shielded Metal Arc Welding(SMAW)process was used to perform the welding. The welding procedure used was WPS-B-T-33(1)14 and the welding rods utilized were 9018M H4R which were kept in a hot rod oven box.

This QA Inspector observed the ZPMC Certified Welding Inspector(CWI) Ye Yong Jun verify the welding machine ampere at 125 and the voltage ws measured at 22.5. This QA Inspector Dixon also performed random verification of the weld parameters using a Fluke meter. The Weld parameters appeared to comply with the above-approved ZPMC WPS. The attached photograph provides additional detail.



Summary of Conversations:

As noted above and basic communication between QC Inspector and QA inspector when and where welding inspections are to be performed.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Dixon,Roscoe

Quality Assurance Inspector

Reviewed By: Cochran,Jim

QA Reviewer